

# GLOBE Phenology Teacher Workshop – 3/9/13

One-Day

Approx 25 Teachers

Protocols: BudBurst, Green-Up, Green-Down

Learning Activities: Earth As A System, Green-Up Cards, Global Patterns in Green-Up & Green Down, Pigemt/Chromotography

Time	Topic	Materials/Resources
8:30-9:00	Registration	
9:00-9:15	Intro to GLOBE	PPT
9:15-9:30	Q: What is a System?	
9:30-9:45	<i>Earth as a System Activity</i>	<i>Posters</i> <i>Earth as a System Cards</i>
9:45-10:00	"	
10:00-10:15	Q: What are Seasons? What is Phenology? (Discuss Seasons & Phenology)	"Journals"
10:15-10:30	Intro GLOBE Phenology Protocols	
10:30-10:45	Budburst Observations	Twigs, Magnifying Glasses
10:45-11:00	Budburst Observations - Inquiry Questions	
11:00-11:15	<i>Green-Up Cards Activity</i>	<i>Green-Up Cards</i>
11:15-11:30	"	
11:30-12:00	Guest Speaker & Lunch	
12:00-12:15	<i>Chromotography Activity</i>	Filter Paper, Black Markers (different #s), Small Clear Plastic Cups, Rulers, Popsicle Sticks
12:15-12:30	Chromotography Summary, Experimental Design	
12:30-12:45	Budburst & Green-Up Protocols	PPT
12:45-1:00	Green-Down Protocol	
1:00-1:15	" ( <i>Protocols Cont</i> )	Color Guides
1:15-1:30	<i>Seasonal Patterns in Green-Up Activity</i>	<i>Images</i>
1:30-1:45	"	<i>Poster, Global Patterns Worksheet</i>
1:45-2:00	Climatology Predictions & Extensions	
2:00-2:15	Student Research	
2:15-2:30	Q- How do plants affect Climate?	
2:30-2:45	Summary	
2:45-3:00	Survey & Certificates	

Trainer: Jessica Taylor, NASA Langley Research Center